Modification P462: Digital Meeting Etiquette

- Welcome to the P462 Workgroup meeting 2 – we'll start shortly
- No video please to conserve bandwidth
- Please stay on mute unless you need to talk – use IM if you can't break through
- Talk – pause – talk
- Lots of us are working remotely – be mindful of background noise and connection speeds

P462 ‘The removal of subsidies from Bid Prices in the Balancing Mechanism’

Meeting 2

27 February 2024

Meeting Agenda

Objectives for this meeting:

- Understanding of the routes to resolve the issue, why the BSC Modification route was chosen and understanding of impacts of other routes; and
- Covering Wider Impacts for P462 and how to address them as part of the Assessment Procedure.

Agenda Item	Lead
1. Welcome and meeting objectives	Patrick Matthewson (Chair)
2. Action review	Jacob Snowden/NGESO
3. Role of a Workgroup member	Jacob Snowden (Lead Analyst)
4. Why a BSC Modification (ToR m): • Further explanation of Issue and Solution • Why a BSC Modification was raised • What other routes were considered and their impacts • To gather further Workgroup feedback	NGESO
5. Wider impacts of P462 (ToR e): • To review current Wider Impacts and scope any other potential Wider Impacts	Jacob Snowden
6. AOB/Workgroup discussion	Patrick Matthewson and Workgroup
7. Next Steps	Jacob Snowden

Action Review

Number	Workgroup raised	Action	Owner	Due by	Status
1	WG1	To consider ToR (m) 'Is the BSC an appropriate route to amend the issue identified in P462?' in more detail at WG2. NGESO to show other routes considered prior to raising P462. Along with their impacts. To allow Workgroup feedback on these other solutions to the issue identified as part of P462.	NGESO/Workgroup	WG2	Open
2	WG1	NGESO to provide a detailed list of the assumptions in the analysis presented at WG1.	NGESO	TBC	Open
3	WG1	NGESO to present back an issues case illustrating the carbon impact of the proposal and what percentage of transactions might displace conventional units in the same settlement period (as opposed the renewable generators with support mechanisms). To consider this has a Wider Impact as per ToR (e).	NGESO	TBC	Open
4	WG1	Review of the Wider Impacts as per ToR (e). This includes suggestions raised prior to the Workgroup. Along with issues raised from WG1. WG1 Issues raised: • Impacts on Wind curtailment • Impacts on Storage • Impacts on Flexibility markets • Impacts on the interaction between the Wholesale market and Balancing Mechanism • Potential Carbon impact (as per Action 3) • Interaction with TCLC (as per action 6)	NGESO/Workgroup	WG2	Open
5	WG1	To review the potential REMA impacts once the consultation is published by DESNZ	NGESO/Workgroup	TBC – After the REMA consultation is published	Open
6	WG1	Consider if the issue identified is covered as part of TCLC.	NGESO/Workgroup	WG2	Open
7	WG1	Elexon to engage with DESNZ on how P462 interacts with government policy.	Elexon	TBC	Open

Workgroup member role

- Ultimately, about ensuring that the Workgroup Terms of Reference are answered, this will include getting confirmation on:

  - ✓ Consideration of any Assessment Consultation responses – do the Proposer or Workgroup wish to change the solution/legal text?
  - ✓ Are the group happy with the costs, impacts and recommended Implementation date that will be reported to Panel?
  - ✓ EBGL impacts
  - ✓ Settlement Risk impacts
  - ✓ Views on consumer benefits
  - ✓ Workgroup views (voting)

Workgroup member role

Voting

- Once all Terms of Reference have been answered, the voting members will be asked for their final views

1. First, the Proposer is asked to state whether they believe the solution is stronger against any of the Applicable BSC Objectives

2. Could be stronger (positive impact), weaker (detrimental impact) or neutral (no impact)

3. Voting members then take it in turn to state which objectives they believe are impacted and how

4. The Change Analyst and Chair capture the votes, then report whether there is unanimous/majority support for each impact on each objective

5. If unanimous/majority view that the BSC Objectives will be positively impacted, we can report that the Workgroup believe the solution should be approved

WHY A BSC MODIFICATION

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The Issue

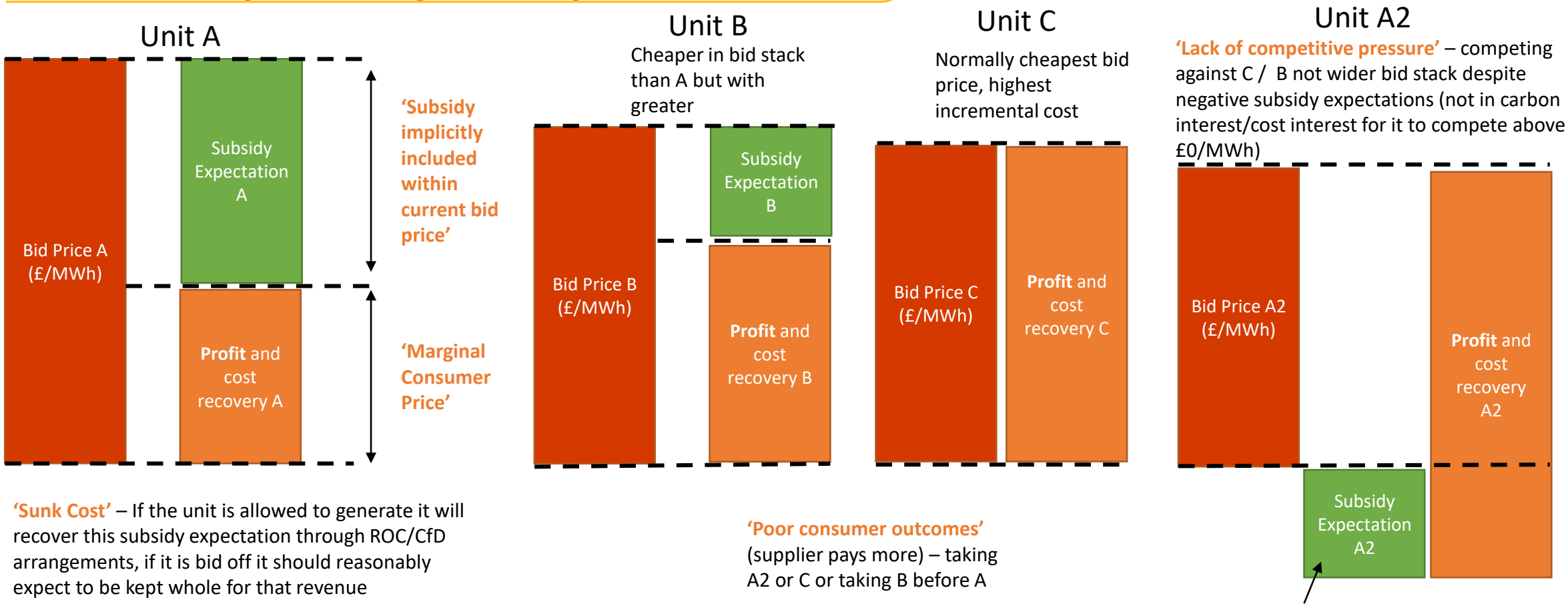
- Taking actions in bid price order causes an inefficiency in consumer outcomes after considering the way in which it interacts with a subsidy, this leads to poor overall consumer outcomes

- Due to the inherent subsidy distortions on the bid stack units which hold subsidy are disincentivised from competing, in cases where they do provide competitive prices are not in merit order, are significantly out of merit order when being considered as options for response or reserve requirements as enacted via the BM

- This lack of competitive pressure leads to further uneconomic consumer outcomes such as clustering pricing behaviours, an ineffective mechanism for LCCC repayment obligations to be reflected in bid prices and unsubsidised units competing at the subsidised price points

- More efficient newer units with lower marginal costs of generating/not generating but lower CfD strike prices are curtailed most often

The issue (Defining terms)

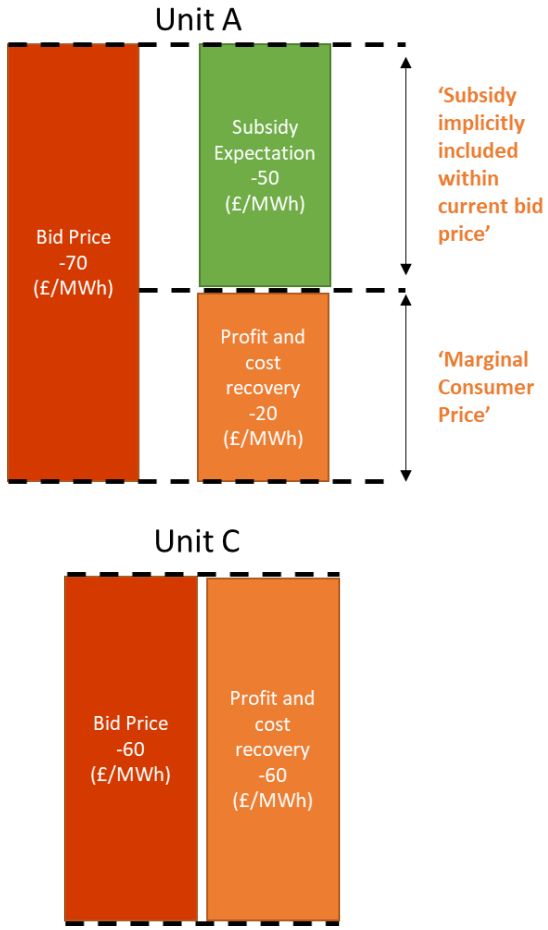


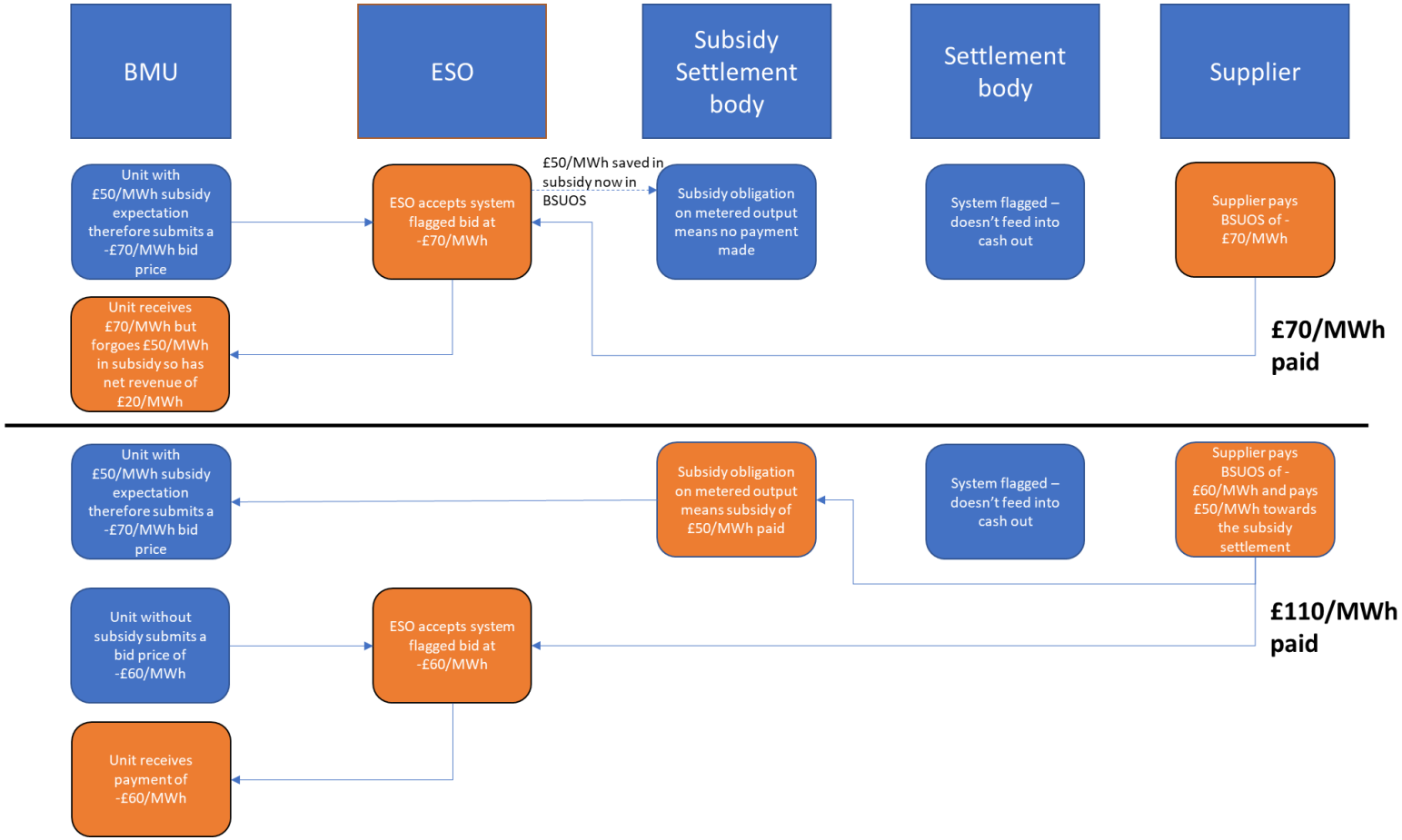
'Sunk Cost' – If the unit is allowed to generate it will recover this subsidy expectation through ROC/CfD arrangements, if it is bid off it should reasonably expect to be kept whole for that revenue

'Poor consumer outcomes' (supplier pays more) – taking A2 or C or taking B before A

'Avoided LCCC repayment obligations', For a CfD subsidy expectation is not always positive and can be negative, if subsidy is negative and the unit is bid off the repayment obligation no longer exists

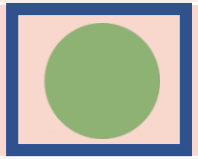
The issue (Cashflow)

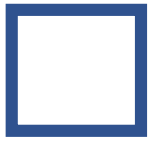




Supplier pays for both the BSUOS cost and the subsidy cost, as costs are higher these are passed onto consumers through higher energy tariffs

Proposed Options for solutions

Option	Summary of views to date	Impact	Ease of delivery
BSC code modification to explicitly pay for any lost subsidy values outside of the direct bid price, separation of lost/gained subsidised revenues & other subsidies for cashflow purposes	This requires changes to the settlement process but would not require redesign of operational systems, it would also make the interactions completely transparent. Allows for a greater scope to cover all subsidies.		
CfD contract change to explicitly take account of any BM bid volume within the payment/repayment mechanism in addition to metered output	A CfD contract change is likely only possible forward looking to future contracts, this is unlikely to fit. Only captures one specific group of subsidised units.		
Request units who hold subsidies to appropriately reflect their marginal cost at all times through their bid prices	This requires no contract changes and is entirely behavioural. However, it does not address the route cause and leads to inefficient market interactions.		
Take account of the subsidy payment/repayment in addition to the submitted BM price when accepting bids	This cannot be manually accounted for and does not sit in scope of current balancing programme upgrades. Automatic adjustment requires new interfaces with Critical National Infrastructure IT systems. Time to resolution is unlikely to be acceptable. This also risks changes in the commercial data submitted by participants and lower transparency.		

Optimal   Viable   Blocker  Already delivered 

Option	Estimated benefits	Contract types in scope	Imbalance	Timelines	Risks	Indirect benefits
BSC code modification for explicit settlement of subsidy	Would historically have led to benefits of £160M or more per year through LCCC repayments not delivered in 2022/2023 and payments to units pricing as though they hold a subsidy Greater benefits would be anticipated from upward competitive bid price pressure	Applies to all subsidies and could include any future subsidy types bringing alignment between the different schemes.	Reduces volatility of imbalance prices introducing competition below £0/MWh. This is likely to lead to a more predictable gradient of negative pricing based on unit marginal cost and profit expectations	Expected to be deliverable within 1 year from BSC mod proposal and could apply to units on any contract type or signature date	May increase instances of zero carbon resource bid price acceptance. This is anticipated to be a low risk given the fuel types below £0/MWh being predominantly renewable assets or storage	Upward bid price pressure from competition. Improves transparency of subsidy cashflows
CfD contract change to explicitly take account of any BM bid volume	Estimated benefit of £90M or less per year based on historic data through LCCC repayments not delivered.	Only CfD units would be in scope of this change. There is potential that only future CfDs are able to be amended.	Reduces some volatility of imbalance prices but leaves potential to change significantly when transitioning from CfD units to ROC units.	Cannot be delivered until after future allocation rounds, adding multiple years of potential delay.	May not be possible to amend retrospective contracts, meaning benefits may only be realised on future units. This significantly limits potential benefits. CfD units may also become more competitive than ROCs units in the BM increasing their curtailment volumes.	It would likely only affect future contracts meaning there is no impact on historic assets.

Option	Estimated benefits	Contract types in scope	Imbalance	Timelines	Risks	Indirect benefits
Request behavioural changes (already included in updated TCLC guidance if implemented per consultation)	Estimated benefit of £90M or less per year through changes in pricing behaviours only. Limited changes to wider bid stack.	CfD contracts are the only units likely to significantly change behaviours as ROCs have a fixed offset meaning TCLC guidance was previously very clear.	Does not change negative price volatility as still implicitly linked with Day Ahead market clearing price.	Requests for behavioural change can happen very quickly however it may take months to years for behavioural changes to propagate.	Does not fix the unintended market interaction directly. May increase carbon impact of bid actions as CfD units tracking the payment obligations move above £0/MWh. May lead to ESO taking actions which are out of consumer cost order when Day Ahead prices are very high.	Enforcement action may recover some retrospective money. This is not mutually exclusive to other options and may be progressed by Ofgem considering how subsidies should interact with TCLC and other market rules.
Re-price BM actions in the control room to account for subsidies	Would historically have led to benefits of £160M or more per year through LCCC repayments not delivered in 2022/2023 and payments to units pricing as though they hold a subsidy. Greater benefits would be anticipated from upward competitive bid price pressure	Applies to all subsidies including CfD holders and ROCs units, could include any future subsidy type.	Introduces randomness dependant on subsidy regime of unit taken and strike price of that asset and makes the process non-transparent.	Not possible to deliver outside of future balancing programme timescales, 3+ years for implementation due to changes to CNI systems. Beyond bid price stack amendment only as would need to feed into optimisation algorithms.	ESO are a market participant, favouring specific unit types through re-pricing after submission risks additional perceived skipping of units. Timelines to deliver this would be long enough that benefits are significantly eroded. Worsens transparency in the balancing markets.	May enable consideration of non-cost based factors in BM merit order.

Why a BSC Change

- Addressing the issue through any other identified mechanism either leads to reduced transparency of decision making or other significant market distortions ie. CfD wind being at the top of the bid price stack when Day ahead prices are high resulting in excess consumer cost

- A BSC modification is appropriate in order to split out the subsidy from the Bid Price so that it is no longer implicitly included. The proposed way to split this out is by amending the BM Unit Cashflow calculation in BSC T3.11 and under this amendment, it will make a BMU whole for any lost support mechanism value

- Changing this interaction will lead to improvements in transparency of costs for both subsidies and BM prices

WIDER IMPACTS

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ToR e) – Wider Impacts

Category	#	Wider Impact
Ancillary services and operability	1	• Future ESO ancillary service market development and operability in the future net-zero system
Carbon impact	2	• Increase in carbon emissions
Existing Power Purchase Agreements	3	• Impact to existing PPA contracts
Flexibility	4	• Business case for flexibility investment
	5	• Large flexible (e.g. hydrogen electrolysers and power to heat projects) electricity end users in constrained areas
	6	• Flexibility impacts
Policy interaction	7	• Interaction with the TCLC
Storage	8	• Storage impacts
Subsidy interaction	9	• Interaction when it moves to fixed price ROCs. Interaction with ROC mutualisation fund. How to capture adjustment for losses for CfD
Wholesale Market and Balancing Mechanism interaction	10	• Possible changes to cash-out prices on Wholesale Prices, particularly Day Ahead
	11	• Distortion within the wholesale power market
	12	• Interaction between Wholesale market and Balancing Mechanism
Wind curtailment	13	• Wind Curtailment

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Next steps

- Summary of Workgroup meeting decisions and actions by 4 March 2024

Progression plan

Event	Date
Present IWA to Panel	9 November 2023
ToR agreed by Panel	14 December 2023
Workgroup meeting 1	16 January 2024
Workgroup meeting 2	**27 February 2024**
Workgroup meeting 3	W/C 25 March 2024
…	…
Assessment Procedure Consultation	22 November 2024 – 12 December 2025
Workgroup meeting	W/C 13 January 2025
Present Assessment Report to Panel	13 February 2025
Report Phase Consultation	17 February – 17 March 2025
Present Draft Modification Report to Panel	10 April 2025
Issue Final Modification Report to Authority	14 April 2025

MEETING CLOSE

Appendix

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THANK YOU

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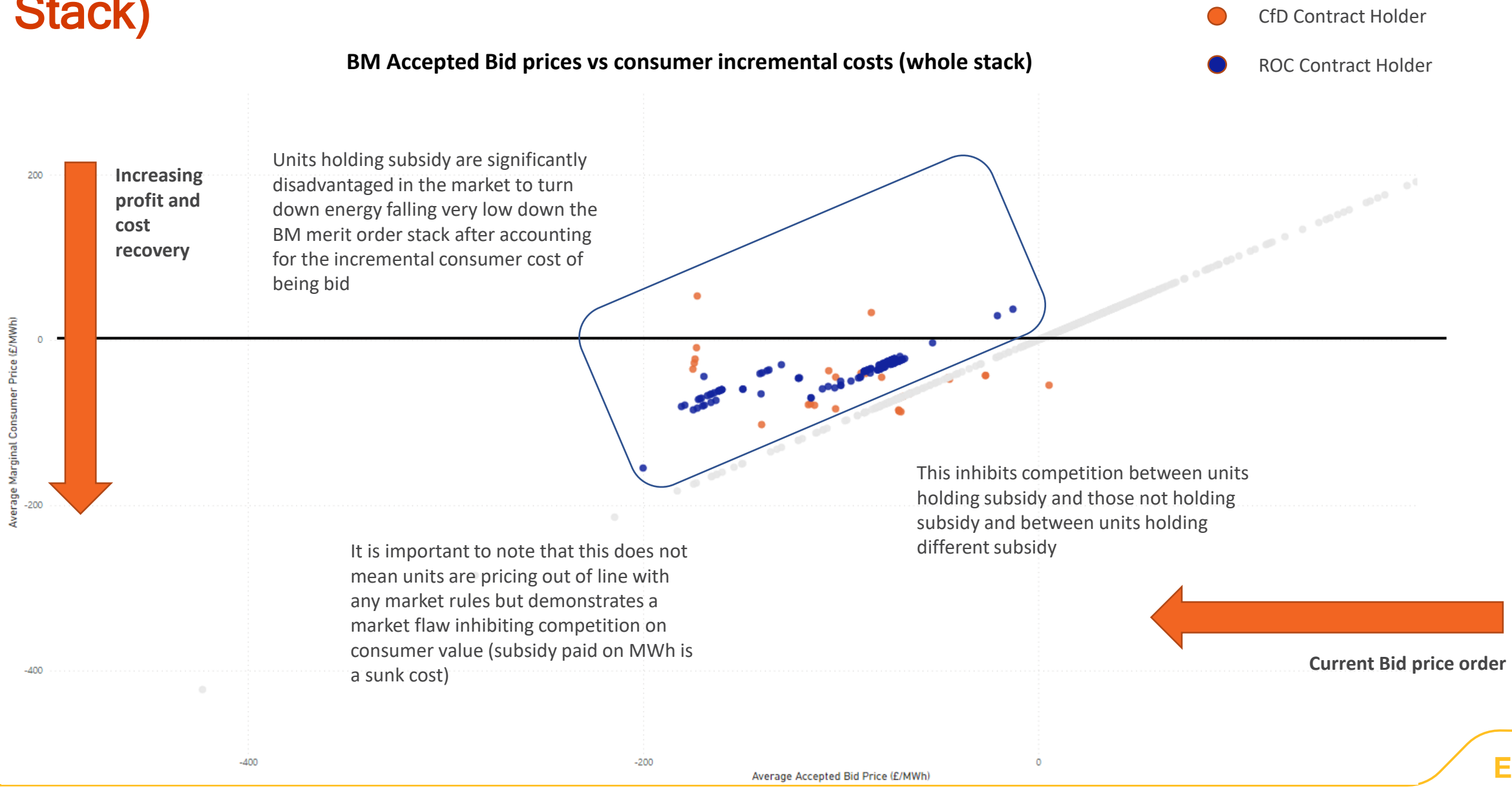
27 February 2024

The Issue (Plot of Profit and cost recovery vs Bid Stack)



The Issue (Subsidised units only)

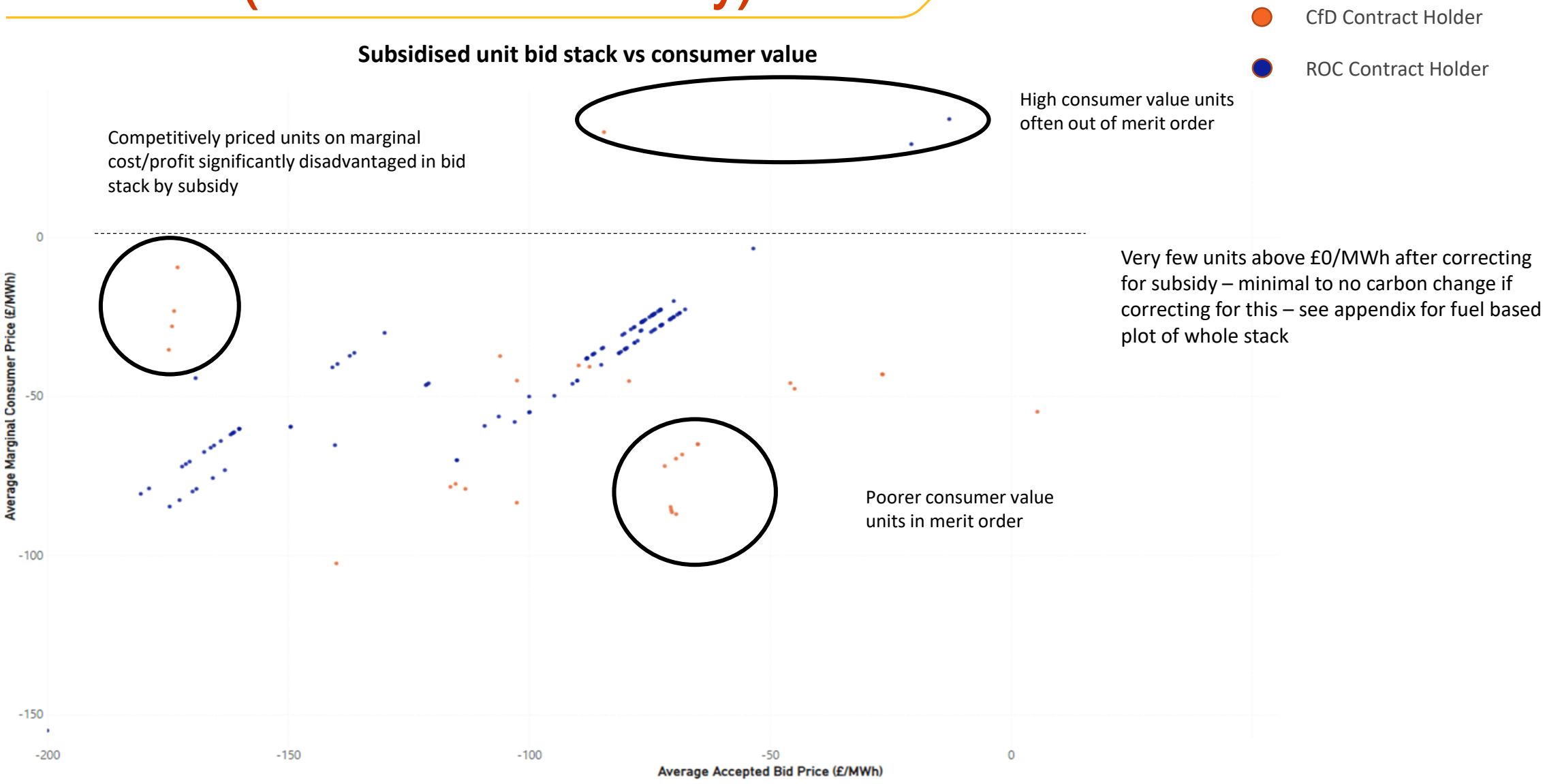
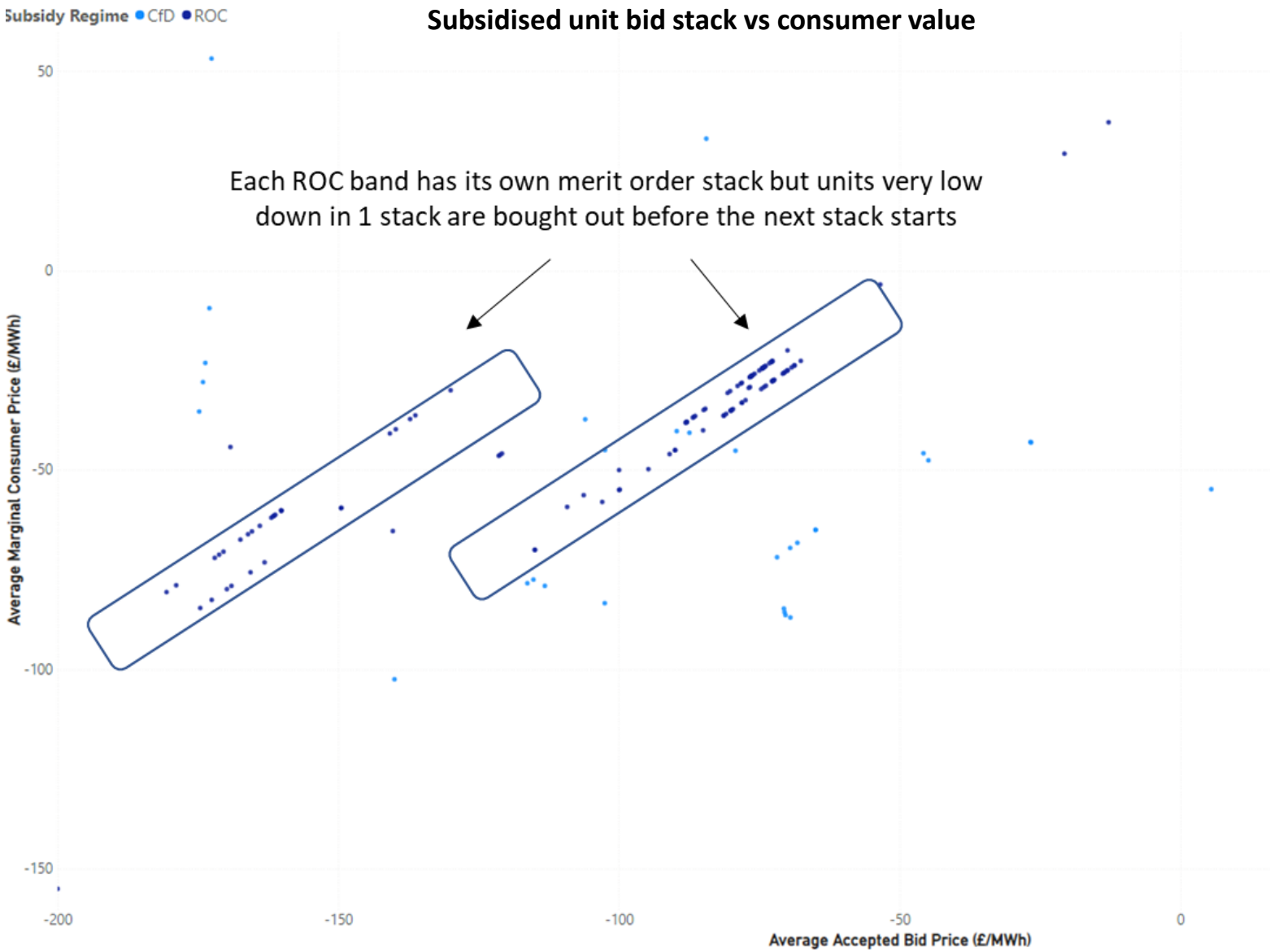


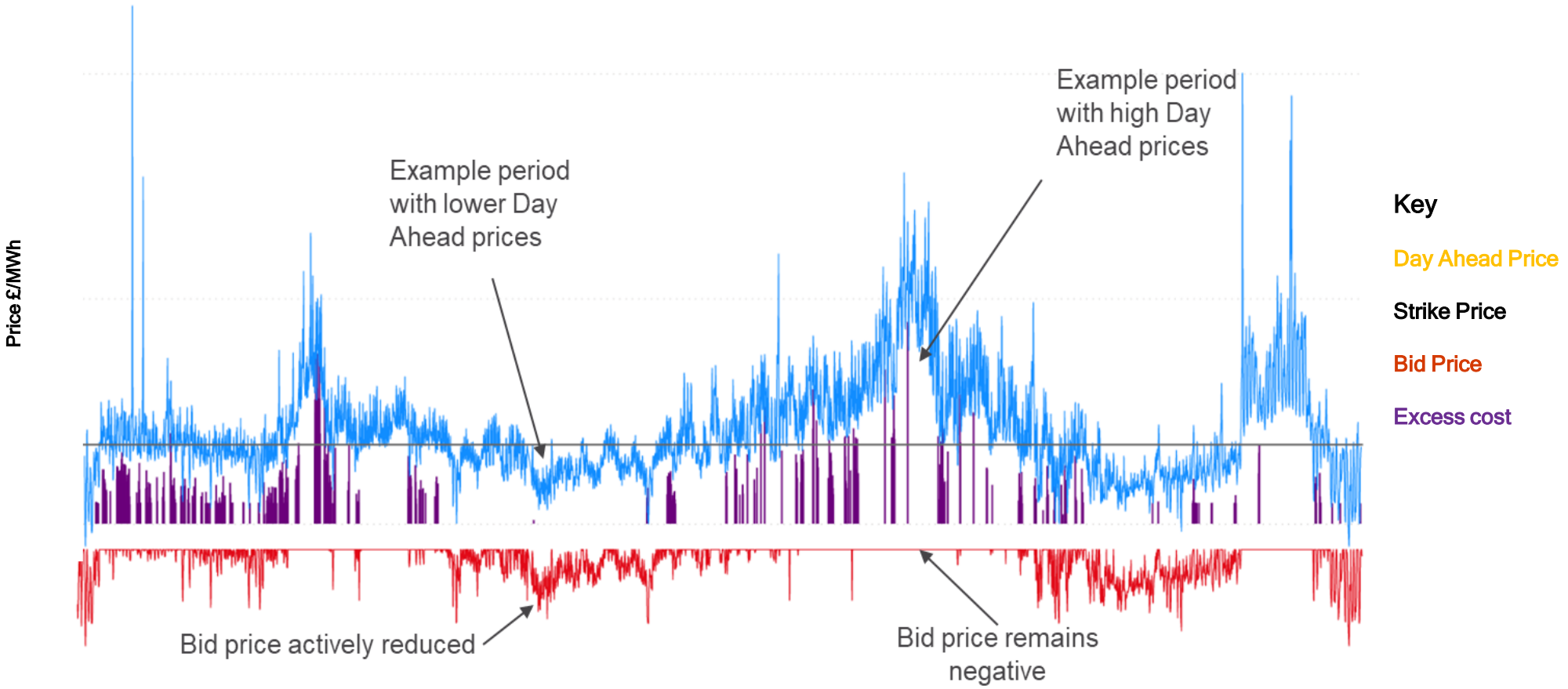
Illustration of banding and clustering



Competition exists within the ROC banding but not between ROC bandings

No specific competitive pressure always applies to CfD units given their differential strike prices

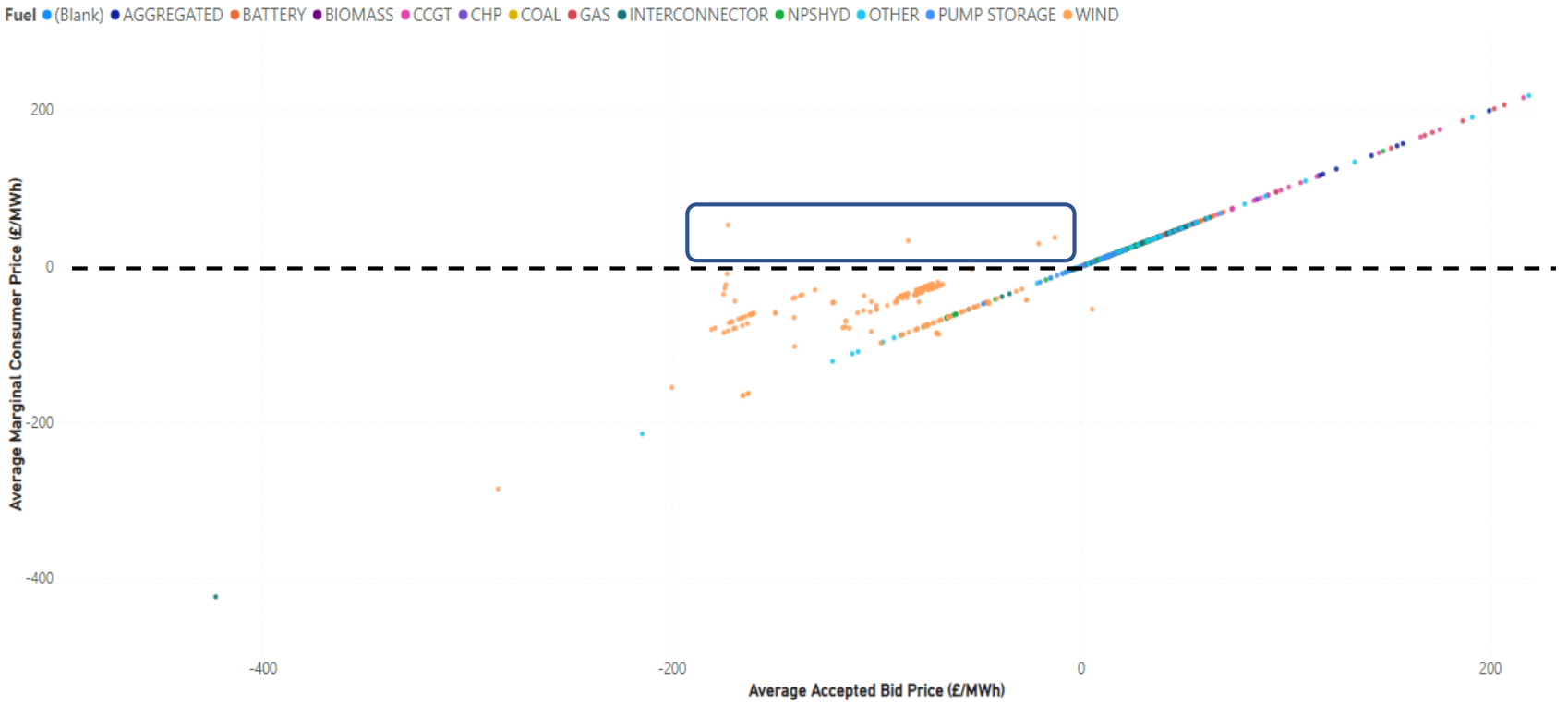
Illustration of clustering pressure



Competitive pressure is only to the cheapest ROC unit leading to LCCC repayment obligations being avoided and BM payment being achieved in the same settlement periods

Carbon Impact Assessment

Average Bid Stack below £0/MWh (2020 – Jan 2024) Re-priced for held subsidy



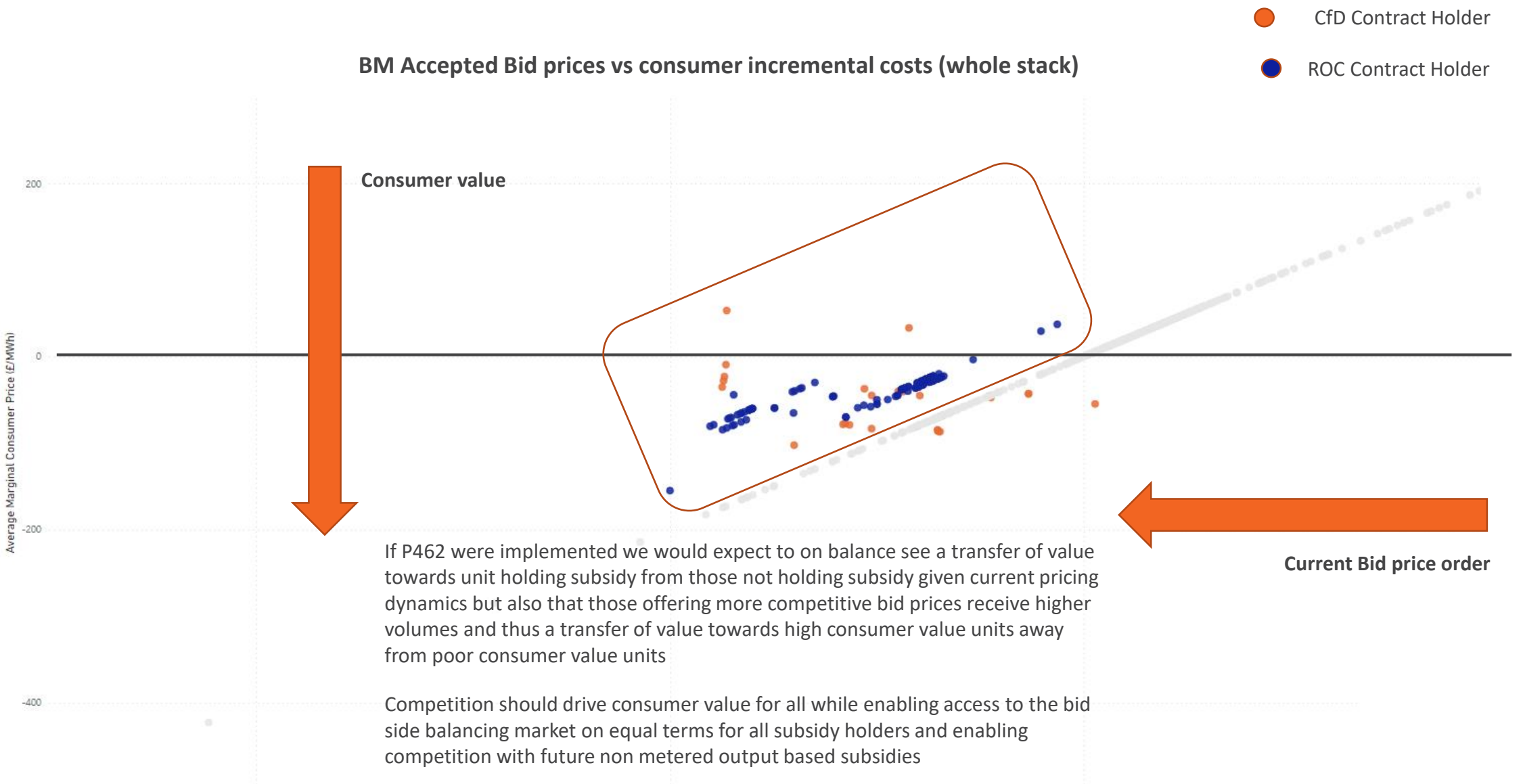
Very few units above £0/MWh after correcting for subsidy

Limited to-no carbon impact as units with a fuel price will typically be positively priced

May benefit carbon outcomes based on OFGEMs updated TCLC guidance would mean subsidies should be included in bid prices which would sometimes put CfD units at the top of the bid stack

4 units have an average subsidy corrected price above 0 which may compete with wider bid stack

Redistribution of value



If P462 were implemented we would expect to on balance see a transfer of value towards unit holding subsidy from those not holding subsidy given current pricing dynamics but also that those offering more competitive bid prices receive higher volumes and thus a transfer of value towards high consumer value units away from poor consumer value units

Competition should drive consumer value for all while enabling access to the bid side balancing market on equal terms for all subsidy holders and enabling competition with future non metered output based subsidies